8710	8700	8690	8680	8670
GTGCTACAAG	CCTTTGGATG	TATCCACTGA	AGGGGTCAGA	CACCAGGGCC
8760	8750	8740	8730	8720
AAGGAGAGAA	GAGGCCAATA	TAAGGTAGAA	TTGAGCCAGA	CTAGTACCAG
8810	8800	8790	8780	8770
GACCCTGAGA	TGGAATGGAT	TGAGCCTGCA	TTACACCCTG	CACCAGCTTG
8860	8850	8840	8830	8820
TCATCACGTG	GCCTAGCATT	TTTGACAGCC	AGAGTGGAGG	GAGAAGTGTT
8910	8900	8890	8880	8870
ATCGAGCTTG	AACTGCTGAC	GTACTTCAAG	TGCATCCGGA	GCCCGAGAGC
8960	8950	8940	8930	8920
GGCCTGGGCG	AGGGAGGCGT	GGGACTTTCC	CTTTCCGCTG	CTACAAGGGA
9010	9000	8990	8980	8970
AGCTGCTTTT	GCATATAAGC	CTCAGATGCT	GTGGCGAGCC	GAACTGGGGA
9060	9050	9040	9030	9020
TGGGAGCTCT	GATTTGAGCC	GGTTAGACCA	GGGTCTCTCT	TGCCTGTACT
10	9097	9090	9080	9070
AAGCTTGCCT	CTCAATA	CTGCTTAAGC	AGGGAACCCA	CTGGCTAACT
60	50	40	30	20
CTGGTAACTA	TTGTGTGACT	TGCCCGTCTG	AAGTAGTGTG	TGAGTGCTTC
110	100	90	80	70
AGCAGTGGCG	GAAAATCTCT	AGTCAGTGTG	AGACCCTTTT	GAGATCCCTC
159	150	140	130	120
CTCTCTCGA	ACCAGAGGAG	CGAAAGGGAA	GACTTGAAAG	CCCGAACAGG

16. (NEW) The nucleic acid of claim 15, wherein said nucleic acid is labeled with a label selected from the group consisting of a radioisotope, an enzyme, a fluorescent label, and a chromophore label. --

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1300 I Street, NW Washington, DC 20005 202.408.4000 Fax 202.408.4400 www.finnegan.com Inventors: ALIZON et al. Serial No. 07/158,652 Filed: February 22, 1988 INTERFERENCE NO. 102,822

Original Claims

- 1. A DNA fragment of LAV extending from nucleotide position 236 to nucleotide position 1759.
- 2. A DNA fragment of LAV extending from nucleotide position 1555 to nucleotide position 5086.
- 3. A DNA fragment of LAV extending from nucleotide position 5670 to nucleotide position 8132.
 - 4. A vector containing a DNA fragment according to any of claims 1 to 3.
- 5. Peptide corresponding to any of those encoded by the nucleotide sequences which extend respectively between the following positions:
 - a) from about 6095 to about 6200
 - b) from about 6260 to about 6310
 - c) from about 6390 to about 6440
 - d) from about 6485 to about 6620
 - e) from about 6860 to about 6930
 - f) from about 7535 to about 7630

6. Peptide characterized by a sequence of amino acids deducible from LAV DNA the terminal amino acids of which extend between the following positions with respect to the lysine (position 1) coded by the AAA at position 5670-5672 in the LAV DNA.

8-23 amino acids inclusive 63-78 amino acids inclusive 82-90 amino acids inclusive 97-123 amino acids inclusive 127-183 amino acids inclusive 197-201 amino acids inclusive 239-294 amino acids inclusive 300-327 amino acids inclusive 334-381 amino acids inclusive 397-424 amino acids inclusive 466-500 amino acids inclusive 510-523 amino acids inclusive 551-577 amino acids inclusive 594-603 amino acids inclusive 621-630 amino acids inclusive 657-679 amino acids inclusive 719-758 amino acids inclusive 780-803 amino acids inclusive

or any combination of these peptides.

7. Peptide corresponding to the amino acid sequences deducible from LAV DNA and the terminal amino acids of which are positioned at the positions hereafter counted from the Met at position 1 coded by the ATG sequence at nucleotide positions 260-2:

12-32 amino acids inclusive 37-46 amino acidé inclusive 49-79 amino acids inclusive 88-153 amino acids inclusive 158-165 amino acids inclusive 178-188 amino acids inclusive 200-220 amino acids inclusive 226-234 amino acids inclusive 239-264 amino acids inclusive 288-331 amino acids inclusive 352-361 amino acids inclusive 377-390 amino acids inclusive 399-432 amino acids inclusive 437-484 amino acids inclusive 492-498 amino acids inclusive

and combination of said peptides.

- 8. Diagnostic means containing any of the DNA fragments of any of claims 1 to 3.
 - 9. Diagnostic means containing any of the peptides of any of claims 4 to 6.
- 10. Vaccine compositions containing any of the peptides according to any of claims 4 to 6 in association with a pharmaceutical vehicle.